SUMMARY

PURPOSE AND NEED FOR ACTION

Preservation of the rural landscape is central to Cuyahoga Valley National Park's legislative mandate. The law that established CVNP mandates the "preservation of the historic, scenic, natural, and recreational values of the Cuyahoga Valley" (Public Law 93-555, 1974). One component of the historic and scenic values of CVNP is the rural landscape. (In this document, the term "rural landscape" refers to lands and structures modified by humans for agricultural use.) Throughout the park's history, efforts to preserve the rural landscape have been sporadic; there has never been a comprehensive program to manage the rural landscape. As a result, many of the park's rural landscape resources have been lost. Therefore, CVNP is proposing to better protect and revitalize this cultural resource by implementing an integrated rural landscape management program, with the goal of more effectively and systematically preserving and protecting the rural landscape resources in the park. The accompanying draft environmental impact statement (EIS) analyzes four alternatives and their associated impacts.

BACKGROUND, POLICIES, AND PLANS

Farming history in the park and in the Cuyahoga Valley Region is significant. For the past one thousand years, there has been some form of agriculture in the Valley (Richner 2001). In the more recent past, specifically the 1800s, agriculture was the dominant and very prosperous way of life, particularly due to efficient transportation of goods via the Ohio & Erie Canal and the railroad system. But by the 20th century, new developments in agriculture in other parts of the state and country surpassed the Valley's farming methods. As a result, farming in northeast Ohio began to decline, while industrial, commercial, and residential development increased. However, the Cuyahoga Valley Region was largely spared from extensive development due to its challenging geography and geology. The 33,000-acre CVNP was created in December 1974, effectively halting the conversions of historic farmsteads into residential and commercial uses.

As the National Park Service (NPS) began to acquire land for the new park, beginning in 1975, the focus was on protecting land from development pressures. However, once acquired, farm structures and farm fields were not given priority attention. Most of the farm buildings were allowed to stand vacant and deteriorating, and farm fields were untended and prone to ecological succession. While undeveloped lands in natural condition were seen to benefit from this "hands off" management strategy, farm properties suffered severe negative impacts. Attempts to address this shortcoming in rural landscape management were slow and haphazard and usually occurred in a very opportunistic fashion. Efforts including occasional mowing of farm fields, involvement of local farmers through short-term special use permits, and adaptive re-use of scattered historic farm buildings proved to be inadequate given the magnitude of the rural landscape preservation challenge.

The most recent effort to address rural landscape management is significant. To develop CVNP's first long-term, comprehensive, agricultural plan, park managers conceptualized a new program called the Countryside Initiative (CI). The park assisted with the formation of a nonprofit partner, the Cuyahoga Valley Countryside Conservancy (CVCC), to help develop and facilitate the CI. The NPS has developed a Cooperative Agreement with the CVCC for this purpose. A Request for Proposals (RFP) for five sustainable agriculture farmsteads was offered in January 2001 (see Appendix E "Production Practices for Sustainable Agriculture"). The park has recently negotiated three leases as a pilot project for the CI. The expansion of this program is outlined as Alternative 2 (the Preferred Alternative) in this document (See also Appendices B and G for information about the agricultural leasing program and fencing guidelines).

The NPS has several mechanisms that allow for agriculture in parks. One of those is its *Management Policies* document, which states that agriculture is allowed when those agricultural activities "do not result in unacceptable impacts on park resources, values, or purposes, conform to activities that occurred during the historic period, and support the park's interpretive themes" (NPS 2001e, p.93). Agricultural uses that do not conform to those in practice during the historic period may be allowed if they "contribute to the maintenance of a cultural landscape" or "are carried out as part of a living exhibit or interpretive demonstration" (NPS 2001e, p.93). The NPS may also allow livestock use "when required in order to maintain a historic scene".

Similarly, on the park level, CVNP has developed several planning documents that address the topic of preserving the rural landscape. In particular, the park's *General Management Plan* (GMP) (NPS 1977) states that "the rural character of America is readily communicated in the agricultural landscapes that have survived to the present day. These and other valuable resources suggest both careful preservation and imaginative interpretation to ensure that they become an integral part of the Cuyahoga environment" (p.35). The GMP, as well as several other planning documents, which are examined in detail in Chapter 1, trace the park's continued desire to preserve the rural landscape and show what steps the park has taken over the years to do so. Currently, the total amount of farming in CVNP is about 3.6 percent of park land.

CURRENT SITUATION

CVNP implements 11 management methods that help preserve the rural landscape, such as leasing and special use permits to name a few. All 11 of these are explained in Section 1.2.4.5. Individually, each of these methods has benefits and drawbacks. Collectively however, it is the inherent drawbacks of these methods that do not allow for the comprehensive management of the entire rural landscape. Although individuals with special use permits (SUP) are farming some fields, this is generally done on a short-term basis so the farmers usually are not focused on long-term care of the land. There are many other fields that could contribute to the rural landscape, but if they are not tended to regularly by permit holders, lessees, or the NPS mow crew, the fields become overgrown. There are more buildings in the park than the park can actually use for its own purposes, so many buildings sit idle and are subject to vandalism and/or deterioration and

ultimately, demolition. Unfortunately, the opportunistic fashion in which the many methods have been applied has made rural landscape management in the park a laborious, expensive, and less than effective undertaking.

OBJECTIVES

In order to more effectively and systematically preserve and protect rural landscape resources in the park, three main objectives must be met in order for an alternative to be analyzed in this EIS; otherwise, it was dismissed. The objectives are:

1. *Continue the agricultural tradition* – Agricultural activity, or the appearance thereof, must be preserved in order to maintain agricultural open space and promote the historic character of the Cuyahoga Valley. Either active farming or open rural landscapes without active farming would be acceptable means of achieving this objective.

2. *Preserve scenic values* – CVNP's enabling legislation mandates the preservation of scenic values, which includes cultural and natural elements. The preservation of agricultural lands and structures that make up the park's rural landscape will help achieve this objective, but any action must be balanced with effects on natural scenic values.

3. *Use environmentally sound practices* – NPS policies and practices promote responsible stewardship of the land. Because the proposed action will affect the park landscape broadly, environmentally sound practices are imperative.

Another important factor in determining which alternatives would be analyzed is the laws and regulations governing NPS actions. These can be found in Section 1.3.2.

ISSUES

Summaries of public involvement during scoping and document review are found in Section 1.4, Chapter 5 and Appendix C. The public scoping process identified environmental issues of concern. Those that might lead to discernable impacts were analyzed. The areas of impact analysis include potential environmental impacts on:

- Cultural Resources, including archaeological resources, historic structures, and cultural landscapes;
- Vegetation, including rare, threatened, and endangered species, and associated habitat;
- Wildlife, including rare, threatened and endangered species, and their habitats;
- Water Resources, including wetlands, streams, rivers, floodplains, and ponds; and
- Social Environment, including human health and safety, nuisance wildlife, visitor use and experience, and local communities.

ALTERNATIVES

Before the four alternatives could be fully devised, the amount of agricultural land and structures available for management had to be determined. Land and structure inventories were conducted, which determined that 1,345 acres of land and 58 properties with 175 structures could be included in the rural landscape management program. These totals are the maximum amount of land and structures available for management regardless of the alternative selected. Currently, the NPS manages approximately 740 acres using one of the methods described in Section 1.2.4.5. The remaining 605 acres of available open space are not currently actively managed for rural landscape value. The proposed action would designate these areas for mowing or potential agricultural use.

The actions common to all the alternatives include:

- Policies, Protocols, and Monitoring: Each alternative will conform to a common set of applicable regulations, NPS guidelines, policies, and procedures. If it does not, NPS will seek and implement the appropriate remedy before taking such actions.
- Common Vista Management Actions: Two large areas will be managed (through mowing or habitat management) as grassland habitat, and one area will continue to be mowed for recreational purposes. This acreage (~135) will not be available for other agricultural uses.
- Management Methods Available: Various methods may be used in any of the alternatives, but the difference between the alternatives is the emphasis of one or two methods over the others.
- Rehabilitation and Maintenance of Properties: The NPS will rehabilitate properties and be responsible for major property maintenance over time. Day-to-day maintenance may be the responsibility of the particular user if other than the NPS. Also, the rate at which properties are rehabilitated is constant among alternatives (approximately 3-4 per year for 10 years), although the type of rehabilitation may differ. Properties will be rehabilitated in order of priority for use. Structures on properties pending rehabilitation will undergo interim stabilization measures and associated lands will be maintained to control succession.
- Resources Reviews: Natural and cultural resource staff will review all lands and structures that will undergo any change in current management methods before any changes are approved.
- New Acquisitions and Unforeseen Circumstances: If additional lands and structures are acquired by the NPS, they will be assessed as described for current NPS lands and structures, and then managed under the selected alternative.

Alternative 1 - No Action

In this alternative, the NPS would continue to manage the rural landscape under current park plans and practices using the available management methods. In other words, the

various methods would continue to be applied to unmanaged areas and structures opportunistically as needs arise. There would be no significant change in the emphasis of how these methods are used.

SUPs and vista management by mowing would continue to be the dominant land management strategy, so a mix of conventional farming, sustainable farming, and equestrian uses would be expected. Adaptive park uses and long-term leasing would dominate structure management. Land management and day-to-day maintenance of farm buildings and curtilage lands would be shared in many ways among leaseholders and NPS staff. Little new construction or fencing is expected because the short-term nature of SUP farms does not motivate many farmers to take on this kind of expense. Finally, pesticide use in the park may increase if more land is leased, but the proportion of leased lands treated with pesticides and the type of pesticides used is expected to remain relatively constant. Because of the opportunistic nature of this alternative, some loss of land to succession and loss of structures to deterioration is expected. There are specific costs and income associated with Alternative 1 during the first ten years, the second 10 years, and each year thereafter. These are detailed in Table 2.3 of the EIS. The net cost of this alternative over 20 years is $27,054,750 and will be $797,020 each year thereafter.

Alternative 2 - Countryside Initiative - Preferred Alternative

In this alternative, the rural landscape would be managed largely by issuing long-term leases to private individuals for the purpose of conducting sustainable agricultural activities and revitalizing a ‘sense of place’ in the Cuyahoga Valley. Lands and structures would be leased together, at a rate of 2-3 farms per year for ten years, for agricultural use for periods of up to 60 years. Agricultural open space associated with these farmsteads and not currently managed would be cleared by mowing and/or brushhogging in preparation for farming activities over the next decade.

Farmers would be selected for the CI through an RFP. CI farmers would be required to submit annual farm operating plans for NPS approval. The plans would describe proposed farm activities such as new construction, crop and livestock selection, farming practices, and pesticide, fertilizer, and water use. All farm activities will require NPS approval.

Land management and day-to-day maintenance of farm buildings would become largely the responsibility of the lessees. Pesticide use in the park would be expected to increase as more land is put into active economically-based production, but the types of pesticides used would be largely biological (e.g., *Bacillus thuringiensis*, milky spore, beneficial fungi) rather than chemical. The use of cultural practices, (e.g., rotational planting) biological pesticides and controls, (e.g., ladybugs) and NPS integrated pest management practices would be emphasized over chemical uses. Changes to the landscape elements are expected. Fencing, outbuildings, farm-related structures, bridges, windmills and other structures could be built on leased farmsteads. Because CI farms need to be economically viable, farmers will need to protect their products from foraging wildlife, so the increase

in fencing is expected to be substantial. However, all fences will conform to the fencing guidelines in Appendix G.

Farmers would be expected to use the common marketing methods used in sustainable farming. These include *Pick-Your-Own*, *Community Supported Agriculture* programs in which shares of each season's production are sold in advance to a number of families, and *Restaurant Supported Agriculture*. Additionally, some farmers might maintain a roadside stand, attend weekly farmers markets, deliver direct to customers, or have customers pick up produce at the farm. There are specific costs and income associated with Alternative 2 during the first ten years, the second 10 years, and each year thereafter. These are detailed in Table 2.4 of the EIS. The net cost of this alternative over 20 years is $22,328,305 and will be $369,822 each year thereafter.

Alternative 3 - Vista Management

In this alternative, the NPS would manage the rural landscape primarily for scenic values. The most significant change would be that upon expiration, agricultural SUPs and other agricultural activities on park property, would convert to mowing and non-agricultural use. Regarding structures, the restoration of currently unused farm structures would primarily be as scene-setters (buildings that strictly add to the aesthetics of the park as features of the cultural landscape without any operational function), or secondarily as residential, office, or other non-agricultural use.

Regarding lands, lands would be used for non-agricultural purposes and be mowed to maintain open fields or as wildlife habitat. Curtilage lands will be mowed by NPS to maintain open space. Areas identified as significant for rare, threatened, endangered, or declining plants and animals would be identified and managed to increase habitat value, usually by adjusting mow frequency and timing. Mowing and other land management and maintenance activities would be largely the responsibility of NPS.

Little new construction or installation of fencing is expected. Pesticide use would be expected to decrease as land is taken out of agricultural use. There are specific costs and income associated with Alternative 3 during the first ten years, the second 10 years, and each year thereafter. These are detailed in Table 2.5 of the EIS. The net cost of this alternative over 20 years is $20,588,675 and will be $639,100 each year thereafter.

Alternative 4 - NPS Farming

In this alternative, the NPS would manage the rural landscape primarily by hiring employees or contractors to implement a network of farmed areas as directed by the NPS to give the appearance of active farming in the park. Under this option, lands not under agricultural use would be put into agricultural use and unused structures would be rehabilitated primarily as scene-setters or to support NPS farming activities. Curtilage lands around these structures would be mowed. A farming program directed by the NPS could also include a few farms demonstrating various themes such as sustainability and farming practices of specific historical eras. Basically, the NPS would fill any gaps in

agricultural activity on rural lands. This alternative seeks to preserve not only the open space and vistas associated with agricultural areas, but also the agricultural activities associated with those areas.

Areas currently farmed would continue to be farmed under the management method already in place, but areas currently managed as open vistas would gradually be converted to NPS farming. Whether SUP farmers or NPS farmers were doing the farming, agriculture would be increased above current levels under this alternative. Structures would be managed largely as scene-setters. Curtilage lands would be primarily mowed. Therefore, land management activities and day-to-day maintenance of farm buildings would become largely the responsibility of NPS staff or contractors. Since the emphasis here would be on the activities relating to farming - plowing, sowing, and harvesting - little emphasis on crop protection or production would be made, therefore an increase in fencing or pesticide use is not likely to occur. There are specific costs and income associated with Alternative 4 during the first ten years, the second 10 years, and each year thereafter. These are detailed in Table 2.6 of the EIS. The net cost of this alternative over 20 years is $23,212,025 and will be $766,090 each year thereafter.

ALTERNATIVES CONSIDERED BUT REJECTED

A set of eleven additional alternatives were raised during scoping and public review, but were not analyzed further. They include: Allowing succession; Protecting agriculture outside the park; Developing demonstration farms, only a few farms, organic farms, or historical farms; Alternatives that did not address all rural landscape elements; Implementing Habitat Management only; Restoring original farmland; Establishing public service farming; and Returning farmsteads to original farmers. The reasons these alternatives were dismissed are explained in Section 2.9.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historic, cultural, and natural resources. When identifying the environmentally preferred alternative, economic, recreational, and technical issues are not considered. The park's preferred alternative, Alternative 2, while providing major benefits to the historic and cultural environment, also has the potential to have overall moderate adverse effects on biological and physical resources. As a result, Alternative 3 is considered the environmentally preferred alternative because it causes the least amount of impact on biological and physical resources, and provides at least moderate benefits to the natural, cultural, and historical environment of the park.

DECISION-MAKING FACTORS

As required by NEPA, the selection of an alternative will be based solely on the information gathered and analyzed in this EIS. In full consideration of NPS and park mandates outlined in this document, the beneficial effects and negative impacts on all

aspects of the human environment are compared along with the expected economic costs and technical aspects of each alternative. However, inherent in the decision-making process are trade-offs between natural and cultural resources. In many cases, actions that provide the most benefit to cultural resources also have the greatest negative effects on natural resources, and the opposite is often true as well. It is primarily because of these inherent trade-offs that the park's Preferred Alternative is not the Environmentally Preferred Alternative.

IMPAIRMENT

Impairment of park resources and values is not anticipated from the proposed action. Some actions may have unavoidable adverse impacts, but many of these have been minimized or reasonably mitigated. For example, the conversion of grasslands and "older fields" to agricultural use has direct consequences on species that live in those habitats, so two large grassland habitat management areas were designated to preserve the largest and highest quality habitat for rare and declining bird species and other species dependent on that habitat. Similarly, some of the largest existing areas of shrub habitat were preserved and not targeted for agricultural use and a Habitat Management Plan will be drafted within 5 years to address the long-term maintenance of these open habitats

Also, the preservation of open space in a largely forested landscape contributes to fragmentation levels and related edge effects. This action alone would not lead to impairment, but the cumulative effects on forests from continued regional losses and increased fragmentation of forested areas outside of the park and the effects of regionally overabundant deer populations could possibly lead to the eventual local extirpation of some sensitive forest interior species that need large, uninterrupted expanses of land. This would constitute a major adverse impact, but is not likely to lead to impairment due to the small number of species involved and the indirect and unavoidable nature of the impact.

Finally, if under Alternative 2, deer are forced to browse more heavily in bottomland forests because farm fields and open habitats are suddenly off limits, bottomland forests may be less likely to regenerate. The effects of this action alone would not lead to impairment, but the action could contribute to impairment if bottomland forests are lost. Mitigation associated with this potential impact is beyond the scope of the EIS; however, the park has already initiated planning for a full separate environmental impact analysis under NEPA to assess possible management alternatives for reducing deer-related impacts and preventing impairment of park resources and values.

ENVIRONMENTAL CONSEQUENCES

This section consists of an abbreviated summary table (Table S.1) and the text below. The text describes how impacts were analyzed and other factors considered in the analysis. It is categorized by the five broad issues of concern – cultural resources, vegetation, wildlife, water resources, and social environment. The table is also grouped according to these five categories. It shows the type of impacts expected with each alternative. Impacts that are common to all alternatives, as well as the full impact

analysis, are explained in Chapter 4. A detailed *Summary Comparison of Impacts of the Alternatives* is found in Table 2.9.

Impacts on Cultural Resources

The main cultural resources of the park can be categorized as archeological resources, historic structures, and cultural landscapes. Archaeological resources are often exposed during ground disturbing activities; therefore, impacts were analyzed based on the amount of ground disturbance anticipated under each alternative. Historic structures will be rehabilitated at the same yearly rate, regardless of the alternative chosen. What differs among the alternatives is how the use of the structure portrays its historic character and the long-term preservation potential of the structure; therefore, impacts were analyzed based on these two criteria. Cultural landscapes are the least tangible of the cultural resources. Cultural landscapes at CVNP are preserved to maintain their character and feeling, rather than a specific appearance or time period. More specifically, it is the *rural* landscape at issue in this EIS. The rural landscape exhibits the historic activity as well as the cultural and aesthetic values associated with agriculture. For this resource, impacts were analyzed by comparing each alternative's ability to portray the historic rural character of the landscape, which is defined by its function, visual quality, spatial organization, land use patterns, and character-defining features.

Impacts on Vegetation

The terrestrial vegetation in CVNP consists of forest, "older fields" in various states of succession, wetlands, suburban lands (lawns, golf course, and cemeteries), and agricultural fields. Only vegetation within and directly adjacent to the proposed agricultural lands is likely to be directly affected by the proposed action. The level of impact on vegetation that will occur is related to the level of succession that has already taken place there. For analysis purposes, proposed agricultural lands are best categorized as "open fields," which refer to currently or recently managed fields and grassy meadows that are in early stages of succession, but do not possess significant shrub/sapling growth, and "older fields", which refer to areas that have significant shrub/sapling growth to heights sometimes greater than six feet. The "older fields" that are further in succession are likely to experience a broader range and intensity of impacts.

It is expected that while forest habitats are not directly affected by the proposed action, forest vegetation in the park may be indirectly affected by some alternatives that increase deer populations and their browse pressures in forests.

In evaluating the impacts on terrestrial vegetation, several topics were considered: threatened and endangered plants, loss of native vegetation, hybridization, arrested succession, and edge effects and fragmentation. Impacts were analyzed in terms of total anticipated changes after 10 years. The level of impact on these topics is directly related to the type of management undertaken under each alternative.

Impacts on Wildlife

There are a multitude of wildlife species and habitats located in CVNP. Wildlife (and their associated habitats) most likely to be affected by the proposed alternatives in this EIS are white-tailed deer, terrestrial birds, coyotes, beaver, potential "nuisance species" such as raccoons, woodchucks, Canada geese, and butterflies. Impacts of the proposed action to wildlife were assessed primarily in terms of potential effects on amount and quality of habitat, distribution of animals, and levels of direct disturbance to species. Impacts were largely analyzed in terms of total anticipated changes from existing conditions after 10 years. Furthermore, impacts on wildlife were assessed in terms of likely worst-case scenarios. In other words, it was assumed that all acreage proposed for each alternative would be completely utilized for the purposes described and in the proportions described.

Impacts on Water Resources

The water resources present in CVNP include rivers and streams, wetlands, and lakes and ponds. Most park streams and all ponds meet the warm water habitat standards set by the State of Ohio. It was assumed that the protective buffers prescribed in the *Riparian Buffer Plan for Proposed Agricultural Lands* and the *Wetland Protection Plan for Proposed Agricultural Lands* would be implemented prior to action and that these buffers would effectively prevent most direct and indirect impacts to water resources. The potential that the alternatives would facilitate future development or impact water resources or their buffer zones was examined. It was assumed that such situations are most likely to be associated with long-term leasing of farmsteads and new construction activities. It was also assumed that park utilization of structures and maintenance of open space by mowing would not often result in these unavoidable impacts due to the flexibility of these management approaches.

Impacts on Social Environment

There are four areas in which the human component of the park could be affected by the proposed action: health and safety, which includes effects of electric fencing, guardian animals, and/or deer-vehicle accidents; the effects of nuisance wildlife; visitor use and experience, which includes scenic values as well as recreational activities; and local communities, which includes effects on municipalities, schools, and local businesses.

Depending on the location of the farmsteads to be used, some communities and school districts may experience more impacts. Boston Township is the community with the most agricultural properties (almost 50 percent), including the most that could become residences. Potential residences are distributed across six school districts, with the largest amount occurring in the Woodridge School District (74 percent).

Two other factors considered in the analysis are taxes and park visitation. Some communities collect revenue through income taxes. The NPS has several mechanisms, including fire protection compensation and road improvement grants, to compensate

communities affected by the level of park visitation. There are several businesses, including farms, in and around the park that thrive in part due to park visitation.

Table S.1 concludes this summary.

Table S.1. Abbreviated Summary Comparison of Impact of the Alternatives

The following terms are used in this abbreviated impact summary chart and throughout the environmental impact statement:

? **Negligible**: the impact is localized or at the lower levels of detection
? **Minor**: the impact is localized or slight, but detectable and would not affect overall resources
? **Moderate**: the impact is clearly detectable and could have an appreciable effect on overall resources; has the potential to become major
? **Major**: the impact is highly noticeable and characterized as severe, or if beneficial, has exceptional beneficial effects

Hyphenated impacts levels indicate the range of impacts that are expected. A full summary comparison chart is found in Table 2.9 in the EIS.

Topic	ALTERNATIVE 1: No Action	ALTERNATIVE 2: Countryside Initiative	ALTERNATIVE 3: Vista Management	ALTERNATIVE 4: NPS Farming
IMPACTS ON CULTURAL RESOURCES				
Archeology	Negligible-minor adverse impacts due to fencing, construction, & compaction from grazing; Minor-moderate adverse impact due to ground disturbance from utility installation; Moderate adverse impact due to conventional cultivation.	Negligible-minor adverse impacts due to sustainable agricultural activities; Moderate adverse impacts due to new structures, fencing, & utility installation.	Negligible-minor adverse impacts from utility installation.	Negligible-minor adverse impacts from new construction & utility installation; Moderate adverse impacts from conventional cultivation methods.
Historic Structures	Major beneficial effect on long-term preservation when put into active use; Minor-moderate adverse impacts may occur if there are delays in putting structures to use; Moderate beneficial effect on historic character due to active use.	Major beneficial effects to historic character and long-term preservation potential of structures from long-term agricultural uses.	Moderate beneficial effects on historic character absent historical use and on long-term preservation potential; Major beneficial effects on long-term preservation when buildings are in full, active use.	Moderate beneficial effects due to use of structures, and connected use of land with structures; Major beneficial effects to rural character of farm and park-wide landscapes due to agricultural activities.

Topic	ALTERNATIVE 1: No Action	ALTERNATIVE 2: Countryside Initiative	ALTERNATIVE 3: Vista Management	ALTERNATIVE 4: NPS Farming
IMPACTS ON CULTURAL RESOURCES (continued)				
Cultural Landscapes	Major beneficial effect on historic character for lands used for agriculture. Possible major adverse impacts at farm level if lands are lost to succession, possible minor adverse impacts at park level. Moderate beneficial effects from non-agricultural use of structures. Minor-moderate adverse impacts from unused structures.	Major beneficial effects to historic character of rural landscape from using lands in conjunction with associated structures for agriculture; Moderate beneficial effects from new fencing.	Minor beneficial effect on historic character from mowing; Moderate beneficial effect from use of structures as scene-setters or for park operations.	Major beneficial effects to historic character from agricultural activities. Moderate beneficial effect on rural character from use of structures as scene-setters or for NPS farming.
IMPACTS ON NATURAL RESOURCES				
Vegetation	Moderate adverse impacts from nutrients, pesticides and spread of invasives and non-native species. No impacts on threatened or endangered species are expected.	Minor adverse impacts from livestock movements and nutrient and pesticide flows. Minor-moderate adverse impacts from the spread of invasives; Moderate indirect adverse impacts from increased deer browsing on forest groundcover species diversity, forest diversity, regeneration, and vertical structure; Possible major adverse impact if sensitive understory species were lost. No impacts on threatened or endangered species are expected.	Negligible impacts. No impacts on threatened or endangered species are expected.	Minor-moderate adverse impacts from soil disturbance that could lead to the spread of invasive and non-native species. No impacts on threatened or endangered species are expected.

Topic	ALTERNATIVE 1: No Action	ALTERNATIVE 2: Countryside Initiative	ALTERNATIVE 3: Vista Management	ALTERNATIVE 4: NPS Farming
IMPACTS ON NATURAL RESOURCES (continued)				
Wildlife	Minor adverse impacts on beaver. Minor beneficial effects on deer offset by human conflicts and harassment. Negligible-minor beneficial effects on early successional species &grassland (including state-listed birds); Negligible-minor adverse effects on most other wildlife; No impacts on federally-listed threatened or endangered species are expected.	Moderate adverse impacts on early successional and grassland species (including state-listed birds) due to net loss of habitat. Moderate-major adverse impacts on deer & coyote from loss of habitat and food resources, increased human conflicts and vehicle accidents; Possible major adverse impact if sensitive bird species are lost due to cumulative browsing impacts on forests by deer; No impacts on federally-listed threatened or endangered species are expected.	Minor-moderate beneficial effects to deer and beaver due to decreased human conflicts; Moderate-major beneficial effects to grassland & early successional species (including state-listed bird species); Negligible to minor adverse impacts on deer from some loss of agricultural forage; No impacts on federally-listed threatened or endangered species are expected.	Negligible-minor adverse impact on early successional & grassland species (including state-listed birds); Minor-moderate beneficial effects to deer due to increased forage. Minor cumulative adverse impact on sensitive forest bird species from deer browsing impacts on forests. No impacts on federally-listed threatened or endangered species are expected.
Water Resources	Negligible to minor adverse impacts from possible future development, largely reduced by mitigation efforts.	Possible negligible to major adverse impacts on individual water resources depending upon possible future site-level development plans. Additional compliance for site-level plans would assess and minimize site-level impacts. At the park level, any adverse impacts are expected to be negligible and largely be reduced by mitigation efforts.	Negligible impacts.	Negligible to minor adverse impacts from possible future development, largely reduced by mitigation efforts.

Topic	ALTERNATIVE 1: No Action	ALTERNATIVE 2: Countryside Initiative	ALTERNATIVE 3: Vista Management	ALTERNATIVE 4: NPS Farming
IMPACTS ON SOCIAL ENVIRONMENT				
Health & Safety	Negligible-minor adverse impacts from nuisance wildlife.	Minor adverse impacts from increased deer-vehicle accidents; Minor-moderate adverse impacts due to increased electric fencing and guardian animals. Minor-moderate adverse impacts from nuisance wildlife.	Negligible impacts.	Minor adverse impacts from increased deer-vehicle accidents due to increased deer population.
Visitor Use & Experience	Minor beneficial effects due to increased wildlife viewing opportunities.	Minor adverse impacts from limited access to park areas due to fencing; Moderate beneficial effects due to increased farming-related activities and programs. Moderate adverse impacts from decreased wildlife viewing and bird-watching opportunities, possibly exacerbated by cumulative effects of regional habitat loss. Moderate beneficial or adverse impacts depending on visitor preference for seeing working rural landscapes or preserved natural landscapes.	Moderate beneficial or adverse impacts depending on visitor preference for seeing preserved natural landscapes or working rural landscapes. Moderate beneficial effects due to increased wildlife viewing opportunities in mowed areas.	Minor beneficial or adverse impacts depending on visitor preference for seeing agriculture or natural landscapes; Minor benefits due to educational programs related to NPS farming activities; Minor-moderate beneficial effects due to increased wildlife viewing opportunities.
Local Communities	Negligible-minor beneficial effects on local community economics. Cumulative community growth could lead to possible adverse impacts on school districts expected depending on district response.	Minor-moderate adverse impacts on Woodridge School District from potential increase in number of children. Cumulative community growth could affect the level of impact expected depending on district response. Minor-moderate beneficial effects from increased local income tax. Minor adverse impacts to local farmers from a reduction in SUP land; Minor adverse impacts on local farmers from increased competition. Minor beneficial effects to businesses from increased visitation and to local farmers from increased program visibility.	Negligible-minor beneficial effects to school districts due to reduction in residents; Negligible-minor adverse impacts on communities' tax bases. Minor-moderate adverse impacts on farmers who use NPS lands.	Negligible-minor beneficial effects on local farmers due to increased visibility; Negligible-minor beneficial effects and on school districts due to reduction in residents; Negligible-minor adverse impacts on communities' tax bases; Negligible impacts on other local businesses.

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